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10/003,417	12/06/2001	Jin-seok Hong	Q65283	5427

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EXAMINER	
SHARMA, SUJATHA R	

ART UNIT	PAPER NUMBER
2618	

DATE MAILED: 12/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/003,417	HONG, JIN-SEOK	
	Examiner	Art Unit	
	Sujatha Sharma	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 November 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *6-9,17-20 and 24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *6-9,17-20 and 24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 6,7,24 are rejected under 35 U.S.C. 102(b) as being anticipated by Hwang [WO 00/74275].

Regarding claim 6, Hwang discloses a method of novel system for handoff where a channel construction of a base station is disclosed. Hwang further discloses a base station/a wireless communication apparatus transmitting and receiving data wirelessly, comprising:

- a transmitting portion for transmitting the data through at least one frequency channels. See page 8, lines 18-27
- controller arranged to
    - obtain a number of transmittable channels of a counterpart wireless communication apparatus that the wireless communication apparatus intends to communicate with by transmitting data to the counterpart wireless apparatus through a plurality of frequency channels (see page 8, lines 18-27 where the controller 101 processes the messages received on a forward dedicated control channel, the said message related to packet data service i.e. message indicating number of supplemental channels required by the counterpart wireless apparatus),

- determining whether the counterpart wireless communication apparatus receives the data in the respective channels. See page 9, lines 1-10 where an RLP frame provides a service for determining successful transmissions of data on the supplemental channels.
- processing to transmit the data through the transmitting portion according to the obtained number of transmittable channels (See page 8, lines 18-35 where the controller 101 enables/disables the individual channel generators and thus assigns/releases supplemental channels according to the obtained number of transmittable channels).

Regarding claim 7, Hwang further discloses a method wherein the at least one frequency channel includes a basic channel for supporting a communication with other wireless communication apparatuses having a single channel/fundamental channel, and a plurality of additional channels consecutively or inconsecutively positioned with respect to the basic channel. See page 8, lines 18-35.

Regarding claim 24, Hwang discloses a method of novel system for handoff where a channel construction of a base station is disclosed. Hwang further discloses a base station/a wireless communication apparatus transmitting and receiving data wirelessly, comprising:

- Step of dividing the data for transmission by a number of a plurality of frequency channels .and transmitting data to the counterpart wireless communication apparatus that it intends to communicate with (see page 8, lines 18-27 where the controller 101

processes the messages received on a forward dedicated control channel, the said message related to packet data service i.e. message indicating number of supplemental channels required by the counterpart wireless apparatus).

- controller arranged to
    - obtain a number of transmittable channels of a counterpart wireless communication apparatus that the wireless communication apparatus intends to communicate with by transmitting data to the counterpart wireless apparatus through a plurality of frequency channels (see page 8, lines 18-27 where the controller 101 processes the messages received on a forward dedicated control channel, the said message related to packet data service i.e. message indicating number of supplemental channels required by the counterpart wireless apparatus),
    - determining whether the counterpart wireless communication apparatus receives the data in the respective channels. See page 9, lines 1-10 where an RLP frame provides a service for determining successful transmissions of data on the supplemental channels.
    - processing to transmit the data through the transmitting portion according to the obtained number of transmittable channels (See page 8, lines 18-35 where the controller 101 enables/disables the individual channel generators and thus assigns/releases supplemental channels according to the obtained number of transmittable channels).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hwang [WO 00/74275] in view of Bluetooth specifications [XP-002214950].

Regarding claim 8, Hwang discloses all the limitations as claimed.. However he does not disclose a method wherein, while transmitting the data in parallel, the controller applies a frequency-hopping pattern to the plurality of additional channels, corresponding to a frequency-hopping pattern applied to the basic channel.

Bluetooth Specifications teaches a method where the hop frequency applied shall be the hop frequency as applied in the time slot where the packet transmission was started i.e. when applying this teaching to Hwang and Jokinen the hop frequency applied to the basic/fundamental channel at the beginning of the transmission will be applied to the consecutive supplemental channels as well. See section 2.3.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Bluetooth specifications to Hwang in order to reduce the interference in the system while accessing frequency channels and thus improve the performance of the system.

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hwang [WO 00/74275] in view of Rinchiuso [US 20020090004].

Regarding claim 9, Hwang discloses all the limitations as claimed However he does not disclose a method wherein, when the data for transmission is real time data, the controller grades the real time data, and transmits essential data of a basic grade for utilization of the real time data through the basic channel, and transmits the data of other grades through the plurality of supplemental channels.

Rinchiuso teaches a method for scheduling and allocating data in a broadband communication system. Rinchiuso further discloses a method where the controller in the base station sets the grade or quality of service (QoS) for the fundamental channel carrying voice traffic and the supplemental channel carrying data traffic independent of each other before transmission. See page 1, paragraph 7.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Rune to Hwang in order to efficiently utilize the system resources and provide high-quality voice services.

6. Claims 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hwang [WO 00/74275] in view of Jokinen [US 6,266,330].

Regarding claim 17 Hwang discloses a method of novel system for handoff where a channel construction of a base station is disclosed. Hwang further discloses a base station/a wireless communication apparatus transmitting and receiving data wirelessly, comprising:

- Step of dividing the data for transmission by a number of a plurality of frequency channels .and transmitting data to the counterpart wireless communication apparatus that it intends to communicate with (see page 8, lines 18-27 where the controller 101 processes the messages received on a forward dedicated control channel, the said message related to packet data service i.e. message indicating number of supplemental channels required by the counterpart wireless apparatus).
- controller arranged to
    - obtain a number of transmittable channels of a counterpart wireless communication apparatus that the wireless communication apparatus intends to communicate with by transmitting data to the counterpart wireless apparatus through a plurality of frequency channels (see page 8, lines 18-27 where the controller 101 processes the messages received on a forward dedicated control channel, the said message related to packet data service i.e. message indicating number of supplemental channels required by the counterpart wireless apparatus),
    - determining whether the counterpart wireless communication apparatus receives the data in the respective channels. See page 9, lines 1-10 where an RLP frame provides a service for determining successful transmissions of data on the supplemental channels.
    - processing to transmit the data through the transmitting portion according to the obtained number of transmittable channels (See page 8, lines 18-35 where the controller 101 enables/disables the individual channel generators

and thus assigns/releases supplemental channels according to the obtained number of transmittable channels).

Hwang, however, does not disclose a method wherein when the counterpart wireless communication apparatus receives the data through one channel, the controller transmits the data through a basic channel.

Jokinen, in the same field of endeavor, discloses a method where data is transmitted on a basic channels and a supplemental channel is assigned only if required. See col. 1, line 55 – col. 2, line 41.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Jokinen to Hwang in order to efficiently utilize the system resources.

Regarding claim18 Hwang further discloses a method wherein the at least one frequency channel includes a basic channel for supporting a communication with other wireless communication apparatuses having a single channel/fundamental channel, and a plurality of additional channels consecutively or inconsecutively positioned with respect to the basic channel. See page 8, lines 18-35.

Regarding claim 20, Jokinen further discloses a method wherein, when the data for transmission is real time data, the data is graded into respective grades, and essential data of a basic grade (for example voice communication) for utilization of the real time data is transmitted through the

basic channel, and the data of other grades (for example packet switched data) is transmitted through the plurality of additional channels. See col. 1, line 55 – col. 2, line 41.

7. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hwang [WO00/74275] and Jokinen [US 6,266,330] in view of Bluetooth specifications [XP 002214950].

Regarding claim 8, Hwang as treated in claim 17 discloses all the limitations as claimed.. However he does not disclose a method wherein, while transmitting the data in parallel, the controller applies a frequency-hopping pattern to the plurality of additional channels, corresponding to a frequency-hopping pattern applied to the basic channel.

Bluetooth Specifications teaches a method where the hop frequency applied shall be the hop frequency as applied in the time slot where the packet transmission was started i.e. when applying this teaching to Hwang and Jokinen the hop frequency applied to the basic/fundamental channel at the beginning of the transmission will be applied to the consecutive supplemental channels as well. See section 2.3.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Bluetooth specifications to modified Hwang in order to reduce the interference in the system while accessing frequency channels and thus improve the performance of the system.

Response to Arguments

8. Applicant's arguments filed 11/13/06 have been fully considered but they are not persuasive.

The applicant argues that the newly added limitation to the independent claims i.e. a method of determining whether the counterpart wireless communication apparatus receives the data in the respective channels is not disclosed in the prior art references Hwang or Jokinen.

The examiner respectfully disagrees and draws the applicant's attention to Hwang reference where he discloses a method of determining the fundamental channel and number of supplemental or transmittable channels and transmitting data to the wireless communication apparatus intended to receive data through these transmittable channels. (see page 8, lines 18-27 where the controller 101 processes the messages received on a forward dedicated control channel, the said message related to packet data service i.e. message indicating number of supplemental channels required by the counterpart wireless apparatus). Hwang further discloses a method of determining whether the counterpart wireless communication apparatus receives the data in the respective channels. See page 9, lines 1-10 where an RLP frame provides a service for determining successful transmissions of data on the supplemental channels.

Therefore the rejection of the claims 6-9,17-20 and 24 as discussed above is considered proper.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sujatha Sharma whose telephone number is 571-272-7886. The examiner can normally be reached on Mon-Fri 7.30am - 4.00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sujatha Sharma
December 7, 2006